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Maintenance

**FUNCTIONAL/OPERATIONAL CHECK
FLIGHT AND HIGH SPEED TAXI CHECK**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction standardizes procedures for managing an effective Functional Check Flight (FCF), Operational Check Flight (OCF) and High Speed Taxi Check (HSTC) program. It applies to all personnel involved in preparation and performance of FCFs, OCFs and HSTCs on assigned or transient C141B and C-17A aircraft at McChord Air Force Base. FCFs, OCFs and HSTCs are defined in AMCI 21-101. For simplicity, this instruction uses the acronym FCF synonymously with OCF and HSTC; the preparation required is basically the same.

1. References: Air Force Instruction (AFI) 11-401, *Flight Management*; AFI 11-202V3, *General Flight Rules*; Technical Order (T.O.) 1-1-300, *Acceptance/Functional Check Flights and Maintenance Operational Checks*; T.O. 00-20-5, *Aerospace Vehicle Inspection and Documentation*; Air Mobility Command Instruction (AMCI) 21-101, *Maintenance Management Policy*; applicable -1 and -6 Technical Orders (T.O. 1C-141B-1, *Flight Manual*; T.O. 1C-141B-6CF-1, *Acceptance and/or Functional Check Flight Procedures*; T.O. 1C-141B-6CL-1, *Acceptance and/or Functional Check Flight Checklist*; T.O. 1C-17A-1, *Flight Manual*; T.O. 1C-17A-6CF-1, *Acceptance and/or Functional Check Flight Procedures*; T.O. 1C-17A-6CL-1, *Acceptance and/or Functional Check Flight Checklist*).

2. Responsibilities: The 62d Logistics Group Commander (LG/CC) and 62d Operations Group Commander (OG/CC) have joint responsibility for effective management of the installation FCF program. The success of this program relies on cooperation between the maintenance and operations communities. The Logistics Group Quality Assurance Chief and the Operations Group Standardization Evaluation FCF officer-in-charge (FCF/OIC) collaborate to ensure a viable program. The OG/CC (or equivalent) will designate an FCF/OIC for each type aircraft assigned.

3. Procedures: These procedures will typically be accomplished after flight altering modifications, completion of maintenance specified in the applicable aircraft -6 technical order or following completion of

maintenance/repair actions where commanders deem a functional/operational test flight appropriate. This instruction provides guidance to ensure the procedure is accomplished safely, expediently and by an appropriately qualified crew.

3.1. The Logistics Group Quality Assurance Assessment (QAA) office is the maintenance focal point for FCF matters. **QAA will:**

3.1.1. Help plan and monitor the FCF.

3.1.2. Establish points of contact (POC) in QAA, Operations Group Standardization and Evaluation (OGV) and the applicable squadron maintenance supervision (MS) for coordination of each FCF.

3.1.3. Notify Plans and Scheduling (PS&D), Current Operations (OSO) and OGV of the FCF requirement providing a minimum 24-hour notice for scheduling and establishing crew alert times.

3.1.4. Monitor the aircraft estimated completion time (ETIC) and schedule the date, time and location for prior-to-flight aircrew briefing (prebrief) no later than three hours prior to launch.

3.1.5. Conduct and coordinate prebrief requirements. Ensure the prebrief includes representatives from QAA, OGV, maintenance, and the FCF aircrew. The briefing should cover the following topics: Reason for FCF; history of maintenance actions and discrepancies related to the FCF; detailed and accurate documentation needs; aircraft configuration, fuel load, and weight and balance information; brief description of aircrew checks to be accomplished; aircraft take off and flight duration times and weather forecast.

3.1.6. Initiate the FCF Worksheet and issue the FCF kit to the flight crew. The FCF Worksheet is a detailed checklist used to record coordination requirements and aid the prebrief. The FCF Kit includes T.O. 1-1-300, applicable -6CF-1, -6CL-1 and Flight Crew Briefing Letter.

3.1.7. Facilitate the FCF debrief and review the -6CL-1 and aircraft AFTO 781 forms for adequate completion of all items. Ensure the FCF kit is returned to QA.

3.1.8. Maintain an aircraft FCF Log for historical information as required in AMCI 21-101. Forward a copy of the log entry and all related FCF documentation to PS&D for filing in the aircraft jacket file. PS&D will maintain FCF records for a minimum period of one year after which they may be destroyed. FCF records consist of the original aircraft FCF forms after transcription and the -6CL-1 data completed by the FCF crew.

3.1.9. Brief the LG/CC or designate on FCF results.

3.1.10. Routinely evaluate each aircraft cannibalization recovery to determine if an FCF is required before the aircraft is returned to service.

3.2. The aircraft owning MS (AGS or MXS) will:

3.2.1. Review the applicable (C-141B or C-17A) -6 Technical Orders to determine if any completed modifications or maintenance/repair actions necessitate an FCF. All aircraft recovering from cannibalization status will be evaluated for conditions that necessitate an FCF. Aircraft AFTO 781 form entries will be made immediately upon FCF determination.

3.2.2. Notify QAA immediately upon discovery that an FCF is probable, pending or necessary. Notification will include the circumstances and conditions driving the possible FCF so proper

planning can be accomplished. A minimum of 24 hours notification lead-time is required for proper scheduling purposes.

3.2.3. Configure the aircraft as necessary for a thorough and safe operational check of related systems (no cargo or comfort pallet).

3.2.4. Order/schedule delivery of parachutes from life support, one chute per crewmember.

3.2.5. Initiate FCF entries on the aircraft's AFTO Form 781A per TO 00-20-5 (see [Attachment 1](#)).

3.2.6. Provide systems specialists, as necessary, to assist in the aircrew prebrief and debrief processes.

3.3. Operations Group Standardization Evaluation (OGV) and FCF/OIC will:

3.3.1. Coordinate on all issues dealing with FCF events, as required.

3.3.2. Determine and inform OSO of aircrew qualification requirements, as appropriate, to fly the FCF. Make recommendations to the OG/CC to either proceed with or postpone the FCF if a qualified crew is required but unavailable.

3.3.3. Check weather requirements (IAW T.O. 1-1-300) for the FCF to be flown. If any weather waivers are required, forward the name of the approving official to QAA to be recorded on the FCF Worksheet.

3.3.4. Coordinate with Current Operations, and the respective squadron standardization evaluation (DOV) for crew availability. Verify appropriately qualified aircrew members are selected for the FCF.

3.3.5. Ensure the size of the flight crew to include maintenance experts is limited to the minimum number of personnel required to complete the mission.

3.3.6. Coordinate with QAA to establish local guidance, profile and prebrief requirements for each FCF.

3.4. Plans, Scheduling and Documentation (PS&D) will:

3.4.1. Schedule the FCF through OSO as early as possible but no later than the day prior to a requirement.

3.5. Current Operations (OSO) will:

3.5.1. Task a flying squadron to perform the FCF and forward the qualification requirements received from OGV. If a qualified crew is not available in any of the squadrons, OSO will notify OGV to work the issue.

3.6. Flying squadron after receiving the tasking from OSO will:

3.6.1. Notify OSO of qualified crew availability.

3.7. FCF pilot will:

3.7.1. Release/not release the aircraft for flight per TO 00-20-5. (See [Attachment 1](#)).

RAYMOND E. JOHNS, JR., Colonel, USAF
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Attachment 1

DATE FROM 1999/08/17		TO		CREW CHIEF J. Airman SSgt		ORGN 62 AW		LOCATION McChord AFB		MDS C-17A		SERIAL NO 98-0051.	
SYM D	DATE DISC'D 1999/08/17		WDC P	JCN 230C017	DOC NO .	CF TO 781A	DATED	TRAN- SCRIBED TO 781K DATE		DATE COR- RECTED 1999/08/17			
DISCREPANCY						CORRECTIVE ACTION							
FCF Due IAW T.O. 1-1-300 and 1C-17A-6 (<i>applicable -6 T.O.</i>) See JCNs 198C016 and 198C018 (<i>Reference originating JCN reason for FCF</i>)						FCF completed and aircraft released for flight at 1500 hrs (local time) OR FCF completed and aircraft not released for flight See JCN 231C001 (Reference the JCN of the discrepancy driving the FCF requirement and enter a new FCF Due discrepancy in the 781 A)							
						CORRECTED/ TRANSFERRED BY		GRADE		EMPLOYEE NO			
DISCOVERED BY			GRADE		EMPLOYEE NO.	INSPECTED BY			GRADE		EMPLOYEE NO		
J. Doe (Signature)			SMSgt		00986	I. Didit (Pilot Signature)			Capt				
SYM C	DATE DISC'D 1999/08/17		WDC P	JCN 230C018	DOC NO .	CF TO 781A	DATED	TRAN- SCRIBED TO 781K DATE		DATE COR- RECTED 1999/08/17			
DISCREPANCY						CORRECTIVE ACTION							
QA inspection of aircraft forms & FCF Worksheet due completion before further flight (<i>Make this entry in the next open box immediately after the last FCF discrepancy</i>)						Forms and FCF Worksheet properly completed IAW AWI 21-30 & T.O. 00-20-5							

			CORRECTED/ TRANSFERRED BY	GRADE	EMPLOYEE NO.
DISCOVERED BY	GRADE	EMPLOYEE NO.	INSPECTED BY	GRADE	EMPLOYEE NO
J. Doe (Signature)	SSgt	00986	A. Certified (Signature)	TSgt	01234

AFTO FORM 781A SAMPLE K:QAA/IPI/IPI781(K:446/Forms) MAINTENANCE DISCREPANCY AND WORK DOCUMENT